



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

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STATE AIR POLLUTION CONTROL BOARD ENFORCEMENT ACTION

ORDER BY CONSENT ISSUED TO

**Harrisonburg Resource Recovery Facility
Registration #: 81016**

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code §§ 10.1-1187, -1184, -1307(D), -1309, and -1316(C), between the State Air Pollution Control Board and Harrisonburg Resource Recovery Facility, for the purpose of resolving certain alleged violations of environmental law and regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. “Va. Code” means the Code of Virginia (1950), as amended.
2. “Board” means the State Air Pollution Control Board, a permanent citizens’ board of the Commonwealth of Virginia as described in Code §§ 10.1-1301 and 10.1-1184.
3. “Department” or “DEQ” means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.
4. “Director” means the Director of the Department of Environmental Quality.
5. “Order” means this document, also known as a Consent Order, and incorporates the additional terms and conditions as set out in Appendix A to this document.

6. “HRRF” means Harrisonburg Resource Recovery Facility, a facility that produces steam, chilled water, and electricity from the combustion of municipal solid waste.
7. “Facility” means the Harrisonburg Resource Recovery Facility located at 1630 Driver Drive, Harrisonburg, Virginia.
8. “VRO” means the Valley Regional Office of DEQ, located at 4411 Early Road, P.O. Box 3000, Harrisonburg, Virginia 22801.
9. “CFR” means Code of Federal Regulations.

SECTION C: Findings of Facts and Conclusions of Law

1. Condition IV.A.14.c of HRRF’s Title V Operating Permit, effective January 14, 2004, requires HRRF to maintain an 8-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins/furans or mercury test. The carbon feed rate for the entire first quarter of 2005 was 1.98 lbs/hr as compared to the stack testing established requirement of 4.0 lbs/hr.
2. Condition IV.C.1.k of HRRF’s Title V Operating Permit, effective January 14, 2004, requires HRRF to maintain records of observations of the fabric filters. HRRF failed to document fabric filter observations on 19 days during the first quarter of 2005.
3. Condition VIII.E of HRRF’s Title V Operating Permit, effective January 14, 2004, requires HRRF to notify the Director, VRO Region, within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. HRRF discovered the low carbon feed rate noted in observation #1 above immediately prior to stack testing conducted beginning April 19, 2005. DEQ was not notified of that low feed rate within four business hours and a 14 day letter was not submitted.
4. Condition IV.A.7 of HRRF’s Title V Operating Permit, effective January 14, 2004, 40 CFR 60.1215, and 9 VAC 5-50-410 limit emissions of hydrogen chloride (HCl) to 25 ppm_{dv} at 7% O₂ for each unit. Results from stack testing conducted on April 19-22, 2005 indicate HCl emissions of 30.84 parts per million by dry volume (ppm_{dv}) corrected to 7% O₂ for Unit #1 and 27.91 ppm_{dv} corrected to 7% O₂ for Unit #2. Retesting completed on August 26, 2005 indicated compliance with the alternate HCl standard of 95 percent reduction. Although testing indicated compliance with the HCl emission reduction limit, retesting was not completed within the required thirteen months of the last annual performance test as required by Condition TV.IV.D.4 of HRRF’s Title V Operating Permit, effective January 14, 2004. The previous annual test was completed on March 24, 2004. The

current test is therefore 123 days late.

5. Condition IV.B.6.c of HRRF's Title V Operating Permit, effective January 14, 2004, requires HRRF to obtain valid 1-hour averages for 75 percent of the operating hours per day and for 90 percent of the operating days per calendar quarter. Due to a problem with the oxygen diluent analyzer, data was invalidated for the Unit #2 Carbon Monoxide CEM and the Unit #2 Sulfur Dioxide CEM. This resulted in system uptime of those monitors of 62.21 percent.
6. After a Warning Letter was issued to HRRF on May 19, 2005 for apparent violations discovered during DEQ's review of HRRF's 1st Quarter 2005 Excess Emission Report, which indicated that the required CEM cylinder gas audit specified in Procedure 1 of 40 CFR Part 60, Appx. F was not performed during the quarter, and did not meet the reporting requirements specified in Condition VIII.F.3 of HRRF's Operating Permit in that it was not postmarked by the 30th day following the end of the calendar quarter and was not certified by the responsible official, DEQ and HRRF entered into a Letter of Agreement (LOA).
7. In the LOA signed on July 8, 2005, DEQ expressed concern that adequate resources were not being devoted to the oversight of the facility, especially with regard to environmental compliance. DEQ strongly urged HRRF to utilize an expert was knowledgeable in Title V permit compliance, who could understand and provide input on the operational decision-making process as it relates to compliance, and who could establish a procedural framework to ensure future compliance.
8. In the LOA signed on July 8, 2005, HRRF agreed to assign the responsibility of HRRF environmental compliance to a management member of the City Public Works Department. This responsibility, at a minimum, was to include:
 - a) Creating a detailed compliance calendar listing each permit requirement and report due dates;
 - b) Creating checklists for each report type to verify that the report addresses all permit condition requirements;
 - c) Ensuring the completion of annual stack testing;
 - d) Ensuring the timely completion of monitoring system calibrations and audit requirements;
 - e) Ensuring the timely and complete submittal of all reports.
9. In the LOA signed on July 8, 2005, HRRF agreed to evaluate the design of components requiring frequent maintenance in order to minimize malfunction reporting and the potential for excess emissions. This evaluation was to include, but not be limited to, the feedwater flow valve control loop, the feed ram, and the lime system. HRRF provided the results of this evaluation on October 1, 2005. While reported instances of excess feedwater flow have decreased since the most recent stack test, such instances may be construed as credible evidence of an emissions violation and must be minimized.
10. DEQ issued HRRF a Notice of Violation (NOV) for the violations set out in Items 1 through 3 above on September 16, 2005, and issued an NOV on July 22, 2005 for the violation set out in Item 4 above. DEQ subsequently issued another NOV for the violations set out in Item 5 above on November 10, 2005. Based on subsequent compliance deficiencies addressed in the NOVs dated

September 16, 2005, and November 10, 2005, it appears that HRRF has not provided the appropriate expertise to manage environmental compliance at the facility.

11. HRRF has reported combustion problems resulting from bulky items jamming in the combustor and from the burning of excessively wet municipal solid waste. Where combustion temperatures cannot be maintained, such instances may be construed as credible evidence of an emissions violation and must be minimized.
12. HRRF and City of Harrisonburg representatives met with DEQ officials on September 28, 2005, December 22, 2005, and again on February 21, 2006 to discuss the allegations of violation and remedial measures taken up to the date of the meetings and agreed in principle to the corrective action terms set out in Appendix A to this Order, to terms of a Supplemental Environmental Project (SEP) set out in Appendix B of this Order, and to the payment of a civil penalty in accordance with regulations set out by the State Air Control Board.

SECTION D: Agreement and Order

Accordingly the State Air Pollution Control Board, by virtue of the authority granted it pursuant to Va. Code §§ 10.1-1186(2), 10.1-1309, and 10.1-1316(C), orders HRRF, and HRRF voluntarily agrees to pay a civil charge of **\$45,000.00**, subject to the following conditions in settlement of the violations cited in this Order:

1. \$18,000.00 of this civil charge shall be paid within 30 days of the effective date of this Order. Payment must indicate that the civil charge is paid pursuant to this Order, and shall include HRRF's Federal Identification Number. Payment shall be by check, certified check, money order, or cashier's check payable to **"Treasurer of the Commonwealth of Virginia"** and sent to:

**Receipts Control
Department of Environmental Quality
P. O. Box 10150
Richmond, Virginia 23240**

2. \$27,000.00 of this civil charge shall be satisfied upon completion by HRRF of a Supplemental Environmental Project (SEP) pursuant to Va. Code § 10.1-1186.2, as described in Appendix B of this Order;
3. And, HRRF shall comply with the terms and conditions as set out in Appendix A to this Order.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of HRRF, for good cause shown by HRRF, or on its own motion after notice to HRRF and its opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the Facility as may be authorized by law; or (3) taking subsequent action to enforce this Order. This Order shall not preclude appropriate enforcement actions by other federal, state, or local regulatory authorities for matters not addressed herein.
3. For purposes of this Order and subsequent actions with respect to this Order, HRRF admits to the jurisdictional allegations in Section C of this Order, but neither admits nor denies the factual allegations herein.
4. HRRF consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
5. With respect to matters addressed by this Order, HRRF declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 2.2-4000 *et seq.*, and the Air Pollution Control Law, and for purposes of this Order it waives the rights both to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right of HRRF to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.
6. Failure by HRRF to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. HRRF shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. HRRF shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. HRRF shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:
 - a. the reasons for the delay or noncompliance;

- b. the projected duration of any such delay or noncompliance;
- c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
- d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director within 24 hours of learning of any condition above, which HRRF intends to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

- 9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.
- 10. This Order shall become effective upon execution by both the Director or his designee and HRRF. Notwithstanding the foregoing, HRRF agrees to be bound by any compliance date which precedes the effective date of this Order.
- 11. This Order shall continue in effect until:
 - a. HRRF petitions the Director or his designee to terminate the Order after it has completed all requirements of the Order and the Director or his designee approves the termination of the Order; or
 - b. The Director or the Board may terminate this Order in his or its sole discretion upon 30 days' written notice to HRRF.

Termination of this Order, or of any obligation imposed in this Order, shall not operate to relieve HRRF from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

- 12. By appropriate signature below, HRRF voluntarily agrees to the issuance of this Order.

And it is so ORDERED this day of April 13, 2006.

David K. Paylor
David K. Paylor
Department of Environmental Quality

HRRF voluntarily agrees to the issuance of this Order.

By: Roger D. Baker, City Manager
Date: April 12, 2006

Commonwealth of Virginia
City/County of Harrisonburg

The foregoing document was signed and acknowledged before me this 12 day of
April, 2006, by Roger D. Baker, who is
(name)

City Manager of HRRF, on behalf of HRRF
(title)

Green H. Ryan
Notary Public

My commission expires: December 31, 2007

APPENDIX A

In addition to the foregoing, the Virginia State Air Pollution Control Board orders and HRRF agrees to implement this corrective action plan as an additional provision to this Order. Based on the information obtained to date, DEQ has determined that HRRF must comply with the terms and conditions as set out below:

1. To ensure that the demonstrated carbon feed rate is maintained, HRRF shall provide the necessary wiring and programming for the carbon feed system to include carbon scale outputs to the plant control system, shaft speed sensors on the carbon feed augers, and additional low feed rate alarms by May 1, 2006. Compliance with the required block 8-hour carbon feed rate will continue to be determined in keeping with applicable NSPS requirements (including 40 CFR § 60.1330 and 40 CFR § 60.1335), i.e. by calculation based upon parametric monitoring of auger speed. The carbon scale outputs and feed rate alarm will be an additional notification to the operator of the proper feeding of carbon.
2. HRRF shall provide public information programs to inform citizens of the proper procedures to dispose of solid waste. These programs shall address the impact of problematic waste streams including, but not limited to, grass, yard debris, plastic, metal, wet waste, batteries, and paper. The programs may include, but not be limited to: 1) the development and distribution of brochures to citizens outlining correct methods of solid waste management; 2) Public Service Announcements (PSAs) distributed through the local media; and 3) the utilization of JMU's communications program to provide information to the students concerning proper solid waste management. These programs shall be conducted at a frequency to meet HRRF's goals for materials separation, but no less than annually. By May 1, 2006, HRRF shall provide an addendum to its Materials Separation Plan that includes a description and schedule for proposed information programs. Future changes to the Materials Separation Plan and/or addendum shall be subject to DEQ approval.
3. HRRF shall hire a third party audit firm to conduct a complete environmental compliance audit. HRRF shall provide a report of findings and a schedule to resolve any deficiencies by May 1, 2006. The report and schedule shall be subject to DEQ approval.
4. HRRF shall employ a full-time environmental compliance manager. This manager should have experience with Title V permit compliance and continuous emission monitors, but at a minimum shall have the authority to establish procedures and to require operational changes to ensure compliance. This manager shall also provide a complete review of all reports prior to submittal to DEQ. This position shall be filled on or before June 1, 2006. If HRRF is unable to find a candidate with the appropriate qualifications, or if the position becomes vacant for an extended period of time, HRRF shall employ a consultant with similar qualifications, responsibilities, and authority.
5. HRRF shall submit the information listed below as required for the Annual Report referenced in Condition IV.E.1 of the Title V permit dated December 21, 2005 on a monthly basis until such time as HRRF has not received enforcement action for a period of one year. Activated carbon inventories shall also be conducted on a monthly basis during this period. Each monthly report shall be submitted within thirty days of the end of each calendar month. The first monthly reporting period shall begin on March 1, 2006, with the first report due by April 30, 2006.

- d. Records for activated carbon for each MWCU including:
 - i. The average carbon feed rates recorded during the most recent dioxins/furans and mercury stack tests.
 - ii. The lowest 8-hour block average carbon feed rate recorded during the month.
 - iii. The total carbon purchased and delivered each month.
 - iv. The required monthly carbon usage.
- e. The total number of days that the permittee did not obtain the minimum number of hours of data for five pollutants or parameters. Include the reasons for not obtaining the data and corrective actions taken to obtain the data in the future.
 - i. A summary of any emission or parameter level that did not meet the limits specified in this permit.

Note: Quarterly reports will be provided per the permit requirements, including the above noted information. One report will be provided for the end of the quarter report and not a specific monthly report.

APPENDIX B

SUPPLEMENTAL ENVIRONMENTAL PROJECT

In addition to the foregoing, the Virginia State Air Pollution Control Board orders HRRF to undertake, and HRRF agrees to implement, a Supplemental Environmental Project (SEP) in accordance with the following terms and conditions:

1. The SEP to be performed by HRRF is a Diesel Engine Exhaust Retrofit Program involving vehicles belonging to the City of Harrisonburg's Public Works fleet of diesel engine trucks, including trash and recycling pick-up vehicles. HRRF shall commit to retrofitting at least 24 vehicles by September 15, 2007 and five additional vehicles within 24 months after the execution of this Order (i.e., vehicles scheduled for regular replacement), at an expected cost of \$2,000 per vehicle to accomplish any combination of the following concerning in-service diesel-powered Public Works vehicles:
 - a. Retrofitting diesel trucks with pollution control devices and techniques and infrastructure needed to support such retrofits; or
 - b. Engine replacements that will reduce emissions of particulates or ozone precursors.
2. HRRF's plan must:
 - a. Describe how the work or project to be performed is consistent with the requirements of Item #1 above;
 - b. Include a general schedule and budget (for at least a total of \$27,000, which is the amount allowed to be set off against the total civil charge calculation) for completion of the work along with a requirement of periodic reports to DEQ on the progress of the work called for in the proposed plan through the completion of the project;
 - c. Describe generally the expected environmental benefit for project or work called for under the proposed plan;
 - d. Describe briefly how the work or project described in the proposed plan meets DEQ's SEP policy requirements and guidelines;
 - e. Involve retrofitting of diesel engine vehicles engaged in regular and normal use by either HRRF, the City of Harrisonburg's Dept. of Public Works, or agency thereof;
 - f. Involve EPA-verified retrofit (tier-2) technology;
3. HRRF shall allocate funding for this SEP in its 2006-2007 fiscal year budget and shall provide documentation to DEQ as to amount and purpose of monetary distributions made pursuant to the requirements of this SEP.
4. HRRF shall submit a final report to DEQ no later than October 15, 2007, setting out cost per vehicle and overall cost allocations for the SEP, and shall include the make, model, year, and VIN number or each vehicle subject to retrofitting pursuant to the SEP.

5. HRRF shall begin administering the SEP program by at least September 15, 2006 and shall complete all mechanical retrofitting for 24 vehicles by September 15, 2007 and for five additional vehicles within 24 months of the execution of this Order. Extension of this schedule lies within the sole discretion of DEQ.
6. In the event that HRRF publicizes the SEP or the results of the SEP, HRRF shall state in a prominent manner that the project is part of a settlement for an enforcement action with DEQ.